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THE TRUTH ABOUT EVOLUTION

By WILLIAM SCHOELER

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THE TRUTH ABOUT EVOLUTION

A WORD TO ALL WHO CAN STILL THINK STRAIGHT

BY

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The Truth About Evolution

CHAPTER I

INTRODUCTION

IN one of his latest books, Henry Fairfield Osborn, President of the American Museum of Natural History, says:

"We need not devote any time or space to fresh arguments for the truth of evolution. The demonstration of evolution as a universal law of living nature is the great intellectual achievement of the nineteenth century. Evolution has outgrown the rank of a theory, for it has won a place in natural law beside Newton's law of gravitation, and in one sense holds a still higher rank, because evolution is the universal master, while gravitation is one among its many agents." (Preface to "The Origin and Evolution of Life, p. IX).

Mr. Osborn is warmly supported by Grant Conklin, Professor of Biology in Princeton University, who said, in his reply to W. J. Bryan:

"In the court of intelligent opinion the case of evolution has been closed for nearly half a century."

Now if these things be so — if evolution be an established fact, and the Bible cosmogony wrong, theologians had better revise their beliefs and adapt themselves to the new teaching; for it will not do propagate error. Truth is truth, no matter by whom it is preached. It can never hurt a man to hear the truth; and we want the truth if the heavens fall.

One thing, however, we might honestly face at the outset — a thing which so often is illogically disregarded by so-called "theistic evolutionists" who yet affirm belief in the atonement of Christ: If the evolution theory be true, the Bible is wrong, not only in part, but as a whole; the entire fabric of the atonement falls; the way of salvation as taught in the Scriptures is a mistake and a lie.

No man, to my knowledge, has stated

the case more clearly than H. G. Wells in his "Outline of History". He says, in the fourth volume, on pages 1109 and 1110: "It was only slowly that the general intelligence of the Western world was awakened to two disconcerting facts: first, that the succession of life in the geological record did not correspond to the acts of the six days of creation; and, secondly, that the record, in harmony with a mass of biological facts, pointed away from the Bible assertion of a separate creation of each species straight towards a genetic relation between all forms of life, *in which even man was included!* The importance of this last issue to the existing doctrinal system was manifest. If all the animals and man had been evolved in this ascendant manner, then there had been no first parents, no Eden, and no Fall. And if there had been no fall, then the entire historical fabric of Christianity, the story of the first sin and the reason for an atonement, upon which the current teaching based Christian emotions and morality, collapsed like a house of cards."

That is summing up the matter as briefly

as it can possibly be done. The issue now is squarely before the theologian: if evolution be a fact, then the Bible is wrong; not only in part, but as a whole; not only as regards some questions scientific, but with reference to the entire scheme of Salvation. It is not that merely a verse or a chapter here or there of the Scriptures must be abandoned, but the Bible's heart and core: that around which everything turns, and from which everything depends, — the Christ Himself; the Cross of Calvary; Redemption and Sonship by the Blood of Jesus!

Some, indeed, have said, that no possible harm could come to the Christian religion, even if it were demonstrated that evolution be true, since it would merely go to prove that God is wiser still than first we supposed Him to be, in that he made all things make themselves.

But that is subterfuge! That is evading the issue! The argument is unworthy of á theologian who calls himself a preacher of the Gospel. Let there be no beating about the bush; let the matter be plainly understood: if all the animals, and also man, have

been evolved in the manner described by Huxley and Haeckel, Osborn and Conklin, then there have been no first parents, no Eden, no Fall; neither is there any room for Christ or Redemption. Christianity is of human invention; it is a myth. Man, instead of needing a Savior, may well pat himself on the back, as Goethe has it in his "Faust", and congratulate himself upon the fact, that he has already "thus far advanced."

How any minister of the Gospel (and we want "Gospel" to be understood in its accepted sense) can be a defender of evolution and still preach Christ is, to us, simply passing strange. Such an attitude, to say the least, reveals confused thinking. One may, of course, accept evolution and still be a theist; but how anybody can believe in the evolution hypothesis and still preach Christ and Redemption, is a thing we fail to comprehend.

Is it true that, as Mr. Osborn says, evolution is the most firmly established fact in the universe? Is it true that, as regards its demonstrability, it "takes its place with the

gravitation law of Newton"? The question if of infinite importance, and it is our purpose, in this essay, to examine some of the arguments which evolutionists use to establish their theory.

It might be well, however, first to point out the difference between "Darwinism" and "evolution". They are not interchangeable terms, as many believe. Evolution has reference to the whole universe; it attempts to show, step by step, how the entire scheme of things came to exist; it begins with the electron and ends with man. Darwinism is not as sweeping in its scope; it is merely an account of the way species differentiate. The two main ideas associated with Darwinism are "natural selection" and "the survival of the fittest." "The first has to do with variations that are due to congenital factors; the second is a result of the fact that overproduction is universal in the biological world."

It is evolution that we intend to consider in this essay, though we shall now and again have occasion to speak of Darwinism too. If evolution be true, it must satisfactorily

account both for the origin of the universe and the origin of life, both for the origin of species and the origin of man. Let us see whether it does.

CHAPTER II

THE ORIGIN OF THE UNIVERSE

AS a matter of fact, this universe in which we live exists. How has it originated? What forces caused it to assume its present form? Since time out of mind men have asked these questions and tried to answer them.

All the replies that have ever been made fall readily into three classes: the one which represents that the world has existed in its present form from eternity; the other which affirms that the matter, but not the form, of the world is eternal; the third which believes that both the matter and the form of the world are the result of a spiritual cause.

To sum the matter up in still simpler language. There are just three ways of accounting for this universe: either it is eternal; or it created itself; or it was created. Professor Huxley himself, in his famous New York Lectures, made this statement over and over again.

Very well then; let us test the three different theories, and determine for ourselves which appears to be most reasonable.

1. IS THE UNIVERSE ETERNAL?

Consider it at close range. Look at the earth, which is a part of the universe. What kind of face does the earth wear? Does it make the impression as if it had existed forever? Does it not look rather young? When a pebble has lain for ages in a stream its roughness is gone, its face is smooth. So in the case of the earth: if she were very, very old, if she had existed forever, her face would be smooth; that is to say, the mountains would long since have been washed into the seas, and the valleys be filled by drifts and deposits.

The earth, assuredly, has had a beginning; it is, comparatively speaking, still in its infancy.

But what about the universe as a whole? Can it be possible that the universe is eternal?

There is a well-known law of nature, known as the Law of the Dissipation of

Energy, and that law tells us that even the universe had a beginning.

What is meant by the Law of the Dissipation of Energy? This, that all force tends to an equilibrium. Force, be it understood, can act only when it is unequally distributed. As yet we find it unequally distributed throughout the universe. But we observe that the equalizing process is in full swing. The hundreds of thousands of suns which spangle the firmament, are incessantly pouring forth into ice-cold space incredible volumes of heat; and, says astronomy, the suns are getting cooler every year. Now try to imagine that this radiating process has already been going on for an eternity of time (if you can at all imagine what an eternity of time means), would the suns not have cooled off long ago? Would there still by any unequalized energy left in the universe? Would not a perfect equilibrium have been attained billions and billions of ages ago? But a perfect equilibrium is the termination of all activity, the end of all phenomena; it is death. Force, having once attained its

equilibrium, is incapable of passing again spontaneously into a state of motion.

To illustrate. One may take a heated rod and thrust it into a basin of water. Immediately there results a commotion. The heat in the rod is being dissipated or equalized, and the equalizing process continues until the temperature of the rod and that of the water is the same. Then follows quiescence. A perfect standstill has been attained, and the rod will remain cold forever if left to itself.

So with the universe. The energy in it is even now striving to equalize itself; and the fact that an equilibrium, a standstill, or "entropy", has not yet been attained, is proof sufficient that this process has not been going on forever. In other words: the Law of the Dissipation of Energy demonstrates that the universe had a beginning.

In order to clinch the argument we can not resist quoting a short paragraph from Wells.

"If," he says, "the sun were a ball nine feet across, our earth would, in proportion,

be the size of a one-inch ball, and at a distance of 323 yards from the sun. The moon would be a speck the size of a small pea, thirty inches from the earth. Nearer to the sun than the earth would be two other very similar specks, the planets Mercury and Venus, at a distance of 125 and 250 yards respectively. Beyond the earth would come the planets Mars, Jupiter, Saturn, Uranus, and Neptune, at distances from the Sun of 500, 1,680, 3,000, 6,000 and 9,500 yards respectively. . . . *All the rest of the space about us and for unfathomable distances beyond is cold, lifeless, and void. The nearest fixed star to us, on this minute scale,* would be over 40,000 miles away. Most of the fixed stars we see would still be scores and hundreds of millions of miles off."

How empty is space, comparatively speaking! In an immensity of nothing there float a few tiny specks of incandescent matter. And let us well remember that this immensity which we call space is incredibly cold. But if speace in which these specks of matter whirl and float is cold, how did the

specks become hot? How is it that they are hot even now, in spite of the fact that they must give off heat every day? And can any man in his senses believe that they gave off heat already throughout an eternity of time?

2. HAS THE UNIVERSE CREATED ITSELF?

The theory of the universe which most evolutionists adopt is known as that of Kant and Laplace; and according to that theory the universe created itself. Laplace was an atheist. When Napoleon asked him why he never once referred to God in his book entitled "Celestial Mechanics", the astronomer proudly replied: "My science dispenses with the theory of a God, your majesty."

What is the Kant-Laplace theory of the origin of the universe? This theory, also called the "Nebular Hypothesis", assumes to explain commencement and motion of the planets and the sun by gradual condensation from a nebulous mist that occupied space. Where this mist, or star-dust, came from, the theory does not tell us. We are assured that space, originally, was filled with it, that

somehow it began to move, and by and by to revolve. Thence resulted condensation and heat, and swifter and ever swifter revolutions — a veritable "perpetuum mobile"! Planets next were whirled into space from the central mass, and from the planets, flaming orbs as yet, leaped other masses which congealed into moons. And all this happened spontaneously, without the intervention or direction of a God.

What is to be said about this theory? Does it account for the origin of the universe?

As a matter of fact, there are many scientists of note who not only repudiate it as untenable, but even describe it as "belonging to the romance of science" (Merz, European Thought in the 19th Century, p. 285). Dr. Hans Hoerbiger, a Viennese scientist, has quite another theory, a theory almost diametrically opposed to that of Kant-Laplace, which he calls "glacial cosmogony". The Kant-Laplace theory is nothing but a mass of assumptions. There are scientists who say that it creates more riddles than it ever solved.

(1) It does not explain the origin of matter. What is matter? How did it originate? The theory is mute on these questions. It *assumes* that matter is eternal. But such a procedure begs the whole question at the very outset; it speculates and postulates where it ought to explain.

Regarding the ultimate particles of the universe, Professor Clerk Maxwell said before the British Association at Bradford:

"None of the processes of Nature, since the time when Nature began, has produced the slightest difference in the properties of any molecule. We are, therefore, unable to ascribe either the existence of the molecule, or the identity of their properties, to the operation of any of the causes which we call natural. The quality of each molecule gives it the essential character of a *manufactured* article, and precludes the idea of its being *eternal and self-existent,*" (Nature, Vol. VIII, p. 441.)

(2) It does not explain the origin of motion. We are told that motion seized upon the primordial star-dust; that it condensed, began to revolve, grew hotter and hotter as

the result of its revolutions, and flung off into space the planets and their moons.

Laplace says: "At some point concentration took place in the homogeneous mass; this concentration produced radiation of heat and light, and through the differences in temperature, motion and dynamic action were produced."

All of which sounds plausible enough if an insurmountable obstacle did not stand in the way. "There is," says Faraday, "one wonderful condition of matter, perhaps its only true indication, namely, inertia."

What is inertia? The incapacity to originate force or motion. But if matter is incapable of originating force or motion (and it is), and we are not to believe in force or motion outside and above this material world, how did the first motion arise?

The famous Dubois-Reymond, in his lecture on the seven world-riddles, has the following to say with reference to this perplexing question:

"We see motion arise and cease. If we try to imagine an original state we come to this, that we think of matter as infinite

ages ago at rest and equally distributed throughout infinite space. As a supernatural impulse can have no place in our scheme of things, any sufficient ground for the first movement is wanting. Or if we think of matter as in motion from all eternity, then we renounce at the outset all hope of clearness on this point."

(3) It does not account for the difference in the orbital movements of some of the heavenly bodies. If the Kant-Laplace theory be true, the planets and their moons must, of necessity, all revolve around the parent sun in the same direction. This, however, is not the case. While the moons of the earth, of Jupiter and Saturn, move from west to east, those of Uranus and Neptune spin from east to west. This is declared by many scientists to be an insuperable difficulty.

(4) It does not explain the peculiar grouping of the planets with respect to size or distance. The small planets all occupy the space between Jupiter and the sun; beyond Jupiter we find nothing but planets of monster proportions. Why? Professor

Eugene Miller demands, in "The Origin of Our Planetary System," that the disciples of Kant-Laplace bestir themselves to explain this.

But even if the theory accounted satisfactorily for all mechanical phenomena, could it dispense with the idea of a God as First Cause? By no means. Professor Huxley himself made the statement, that "the teleologists can always defy the evolutionist to disprove that the primordial molecular arrangement was not *intended* to evolve the phenomena of the universe."

Much is made in our day of "the laws of nature", as if the laws of nature were deities. Laws do not make themselves, nor do they enforce themselves. It is much more nearer the truth to say that the universe is governed *according* to laws, than that it is governed *by* laws.

Has the universe created itself? Is it the result of chance — the accidental product of a lucky combination of atoms? Let who will believe such nonsense. We must find a better explanation of the origin of the universe.

But, as we said at the beginning, there are really only three theories to choose from: that the universe is eternal; that it created itself; or that is was created. We considered the first two theories and found them wanting; consequently, there remains only the last. Let us ask, therefore:

3. WAS THE UNIVERSE CREATED?

We have already quoted Professor Huxley's statement, that the teleologist can always defy the evolutionist to disprove that the primordial molecular arrangement was not *intended* to evolve the phenomena of the universe; and we cited likewise Professor Maxwell's assertion, that the quality of each molecule gives it the essential character of a manufactured article. Without a doubt, there is order it this universe; without a doubt, it is full of design. But order is impossible without an Ordainer, and there can be no design, without a Designer. The plan of the body is not in the food we receive, neither is the plan of the universe in the gases, the fluids, and the solids of which the universe consists.

Recently we pointed out to a dentist the wonders evident in the construction of man's jaws and the teeth. There are, as everybody knows, numerous cavities and holes along which veins run, up and down, and to and fro. Now we said to that gentleman, a confirmed infidel: "Is it not remarkable that the little veins always know through which orifices they must creep; that they never make a mistake; that they can always be trusted? Don't you think there is design here?" And the dentist looked up for a minute surprised, and then replied: "Really, I never thought of the matter in that way."

That's just it: too many people never think; they have eyes and see not; minds and reason not. One foot-print in the sand convinced Robinson Crusoe of the presence of man; how many foot-prints of God must some people see before they believe that He exists?

If a man were to tell us that a certain canvas painted itself, we should either consider the person insane, or regard the suggestion as a joke or an insult; for we know that every effect must have a sufficient cause.

Notwithstanding there are men who believe that that of which the painting in question may be a poor copy merely, can very well be the result of chance! A book on astronomy must have an author, but the universe itself does not need one; a text book on botany does not write itself, but the plants grew up quite spontaneously. Such a way of reasoning is absurd; it is straining at gnats and swallowing camels! If the child's dress can not make itself, can the child's soul? If books on astronomy can not originate spontaneously, can the wheeling systems they describe? Let us have clearness instead of cleverness!

The universe is filled with thought. If it were not filled with thought, the human mind would not be compelled to think about it. But as a matter of fact, the greatest minds have occupied themselves with nature and natural phenomena. Kant himself, it will be remembered, used to say that there were two things which filled him with awe: conscience within and the starry heaven above. And he stated further: "Give me matter, and I will explain the formation of

a world; but give me matter only, and I can not explain the formation of a caterpillar." Professor Huxley often quoted the first half of that celebrated saying, but he usually omitted the last.

The universe is filled with thought. But there is no thought without a Thinker, and a Thinker is a Person. We are compelled, therefore, to believe that there is a personal Thinker in the universe. Of this personal Thinker the Scripture says that "in the beginning" He "created the heavens and the earth."

This view of the universe is sensible; it provides a sufficient cause for all phenomena. But mere molecular groupings and molecular motions explain nothing. It is impossible to draw out of the molecular units anything that was not put into them at the beginning. The law of the persistence of force requires that involution and evolution should be equal to each other. Even if we deal with large molecular masses, the atoms of those masses are still nothing but matter and, therefore, inert. Spontaneity of movement is, for them, impossible; they can not change their

state of motion or rest without the influence of some force from without. Ten men, blind individually, can not see if they organize a club; and corpses piled as high as the heavens would still be corpses merely, devoid of the spark of life. You can not make something out of nothing. Involution and evolution are a fixed equation. That is the rock on which multitudes of materialistic theories have foundered, and on which materialistic evolution itself is destined to founder and to beach on chaos.

It is evident, from what has thus far been said, that materialistic evolution does not account for the origin of the universe; and we, therefore, proceed to the second point in this essay, and ask, whether the theory explains the beginnings of life.

CHAPTER III

THE ORIGIN OF LIFE

AS we look about us we find that nature is divided into *two great kingdoms*, the *inorganic* and the *organic*. On the one hand reigns death, and on the other hand multitudinous life. Betwen these two kingdoms an impassible gulf is fixed.

Now the question obtrudes itself: Whence life? How did it originate? Did it arise spontaneously? Did it grow from matter as, for instance, a bud grows from a stalk? Is living matter "constantly being formed *de novo*," as Dr. Bastian used to teach? Does matter itself contain, as Tyndall believed, "the promise and potency of every form and quality of life"?

If the evolution theory be true, life must originate spontaneously; it can be nothing more than a chemical combination. Chemistry should be able to point out the actual steps by which the inorganic is converted

into the organic. The theory of evolution does not admit of a break anywhere in the chain; it must account for all the phenomena from the electron to man; it must bridge the gulf between the rock crystal and the plant.

Does evolution do this — does it explain the origin of life? Not by a long way. The admissions of evolutionists are simply pathetic. Spontaneous generation has never been observed to be a fact. Mr. Wells frankly confesses in his Outline of History, Vol. I, page 5: "We do not know how life began upon the earth. Biologists, that is to say, students of life, have made guesses about these beginnings, but we will not discuss them here. Let us only note that they all agree that life began . . . . on the steaming beaches of mud and sand."

"It *began* on the steaming beaches of mud and sand," Mr. Wells tells us all biologists say. *When* did it begin there? And if it began there *once upon a time,* why do we not observe it beginning there *now?*

There is a famous theory in geology (believed in by most evolutionists), which is called the Uniformitarian Hypothesis.

According to that theory the geological formation of the earth was due to precisely the same forces that now exist; it turns upon the idea that uniformity exists in the forces of the inorganic world. But if this theory be true, it must hold good also with reference to spontaneous generation. We have every right, therefore, to insist that if spontaneous generation does not occur now, it never occured. But it is frankly admitted that spontaneuos generation has never been known to occur. Mr. Wells, in spite of having "read sedulously", and made "use of all the help he could obtain"; in spite of the fact that in his Outline "there is not a chapter that has not been examined by some more competent person than himself and very carefully revised", can not point to a single instance of spontaneous generation!

Neither can Mr. Osborn in his book, "The Origin and Evolution of Life". He indeed *believes* "that the origin of life, as well as its development, will ultimately prove to be true evolution within the pre-existing cosmos"; he indeed *believes* that once upon a time protoplasm originated spontaneously

"in pools of water from concentrated nitrogen and oxygen and related nitrogen compounds"; but as far as experimental proof is concerned, he frankly admits that there is none. He likewise admits that "so far as we know, life on the earth has only originated once or during one period, and not repeatedly." Mr. Osborn makes the latter admission in spite of the fact that he is himself a supporter of the Uniformitarian Hypothesis.

NO SPONTANEOUS GENERATION

The steps by which the conviction was reached that life is ever the gift of life, make very interesting and instructive reading.

Aristotle taught that some animals, particularly the lower forms, sprang into existence spontaneously. Plant-lice, in his opinion, arose from the falling dew, and fleas were devolped from putrid matter.

Alexander Ross urged that mice might be bred by putrefaction, and that worms were generated in cheese and timber. Furthermore, in his opinion, wasps grew

from cows' dung; butterflies, locusts, grasshoppers, shell-fish, snails, eels, and other creatures from decaying or rotting materials. As proof he cited Egypt, where, he affirmed, mice were begotten by the mud of Nilus.

But all these theories, in the course of time, had to be abandoned as untenable. "The first step in the scientific refutation of the theory of abiogenesis (that life originates spontaneously) was taken by the Italian Redi, who, in 1668, proved that no maggots were 'bred' in meat on which flies were prevented by wire screens from laying their eggs. From the seventeenth century onward it was gradually shown that, at least in the case of all higher and readily visible organisms, abiogenesis did not occur, but that *omne vivum e vivo*, every living thing, came from a pre-existing living thing." (Art. "Abiogenesis", in Encyc. Brit.)

DR. BASTIAN'S EXPERIMENTS

The discovery of the microscope completed the refutation. It was proved beyond peradventure that not only "higher forms"

arose by generation from their kind, as had at first been believed, but that the law of biogenesis (life only from life) holds good likewise in regard to the world of infusoria and bacteria. Dr. Bastian, indeed, announced that he had created life *de novo,* but men like Professor Tyndall, Mr. Dallinger, and Huxley, showed that the gentleman was mistaken.

Dr. Bastian had filled glass jars with infusions of hay, and thereupon boiled them until he believed all germs had been killed. But in spite of such boiling life arose after a little while in myriad quantity inside the jars; which fact convinced the experimenter that spontaneous generation was, after all, a fact. He announced his discovery to the world, and in many laboratories the experiment was repeated. The results, however, did not agree with those of Dr. Bastian. It was demonstrated that the spores of some bacteria "are so involved in heat-resisting membranes, that only prolonged exposure to dry, baking heat can be recognized as an efficient process of sterilization; also it was shown that the presence of bacteria, or their

spores, is so universal that only extreme precautions guard against a re-infection of the sterilized material." When all these precautions were taken, no further life developed.

The attempt to get life out of dead matter has failed. It is a settled thing that life comes only from the touch of life. The Encyclopedia Britannica says on this point: "There still remain a few belated supporters of abiogenesis (that life originates spontaneously) . . . but it may now be stated definitely that all known living organisms arise only from pre-existing living organisms."

PROFESSOR HUXLEY'S "BATHYBIUS"

In this connection we desire to call attention to a wonderful discovery which Professor Huxley believed to have made in 1868, and which for a decade or two agitated hundreds of scientists the world over. He announced that in the ooze of the beds of the deep seas a slimy, gelatinous substance had been found which, upon investigation, proved to be undifferentiated protoplasm,

or in other words, life in its simplest form. He gave to this wonderful substance the high-sounding name "Bathybius", from two Greek words meaning *deep* and *life,* and affirmed that it was the progenitor of all the life on the planet. "Bathybius", he declared, "is a vast sheet of living matter enveloping the whole earth beneath the seas."

Ernest Haeckel, well knowing what tremendous issues were at stake, congratulated Huxley on the discovery and was sure that Bathybius was an organism and presented the primary living substance, and the physical and material basis of life.

And there were many other scientists who shared this belief. Things came to such a pass that David Friedrich Strauss, author of "The Life of Christ" from the rationalistic standpoint, affirmed that educated men could no longer be Christians. Before "Bathybius" was found he had admitted that a miracle must be confessed to have occurred once at least "at the introduction of life"; but after the discovery of that wonderful substance he thought that the gap between

the dead and the living forms of matter had been completely bridged over.

What has become of "Bathybius"? The Encyclopedia Britannica laconically remarks: "Investigations carried out in connection with the 'Challenger' expedition indicated that it ('Bathybius') was an *artificial product,* composed of a flocculent precipitate of gypsum thrown down from sea-water by alcohol, and the hypothesis of its organic character was abandoned by most biogolists, Huxley included."

IS LIFE A KIND OF CRYSTALLIZATION?

There are those who compare the transmutation of the non-living into the living to the formation of a crystal. Mr. Edison, for instance, defended that opinion in his interview with Edward W. Townsend, in the New York Times. He said: "Certain solutions form crystals of infinite pattern. May not the life entities design and establish those amazing crystal forms?" He, accordingly, not only *compares* the transmutation of the

non-living into the living with the formation of a crystal, but believes the two processes to be identical.

Mr. Wells, we are sure, would beg to differ with Edison on this point. We observe that in his Outline of History, he makes a clear-cut distinction between living and lifeless forms of matter. "Non-living things," he remarks, "such as crystals, grow, but they have no set limits of growth or size, they do not move of their own accord and there is no stir within them. Crystals once formed may last unchanged for millions of years. There is no reproduction for any non-living thing."

Exactly. And there is still another point of difference. We can form a crystal and dissolve it, and form a crystal again out of the solution, just as we can take two gases, and mix them, and produce water; and then, by an easy chemical process, change the water back into these gases. But we can not perform such tricks with life. If the smallest living organism is once dead, it is dead forever; it can not be resurrected into life!

ARE LIFE AND MAGNETISM IDENTICAL?

Many have compared the simplest forms of life to the power manifested by a magnet. A magnet seems to have the faculty of selection. If we mix bits of iron with sawdust and pass a magnet over the mass, the magnet will attract the metal and disregard the wood. Is not that a manifestation of life?

By no means. A mysterious force is operating here, it is true; but it is not life. Does the magnet grow? Can it reproduce? Can it move of its own accord? Clearly, in the magnet, as in the crystal, only chemical forces are at work. And this becomes evident as soon as we apply the supreme test. "You can magnetize and demagnetize your poor iron any number of times; but kill once the smallest living organism, and there is no remagnetizing that. You may change your magnet from state to state, as you may change water to gases, and gases to water. You may braid and unbraid the threads of any inorganic whiplash again and again, but once unbraid any living strands,

and there is no braiding them together again forever."

HAS LIFE AN EXTRA-TERRESTRIAL ORIGIN?

The doctrine that life originates spontaneously upon this earth is so entirely without foundation that, years ago, Lord Kelvin suggested that it might have sprung into existence on some other planet, and traveled through inter-stellar space on meteorites which fell upon the earth! Sir Ray Lankaster, in arguing this point with Sir Oliver Lodge as late as 1923 in the London Telegraph, did not find this idea so very unreasonable at all. He urged that "minute living germs could conceivably be protected . . . by being embedded in even small particles of meteoric clay." (!)

To what expedients evolutionists are being driven by the inexorable facts! But suppose we admitted, for the purposes of argument, that life might thus have originated on our earth, should we at all have solved the question as regards the *ultimate* origin of life? By no means. We should

merely have shifted the enigma to a remoter plane, a procedure which would have all the ear-marks of a capitulation.

"It is not courageous," says Mr. Osborn, "to put off the problem of life origin into cosmic space instead of resolutely seeking it within the forces and elements of our own humble planet."

Right, Mr. Osborn, for once we agree! But will that ever occur? Dubois-Reymond, at any rate, considers the quest hopeless. Here is what he says: "It is futile to attempt to bridge by chemistry the chasm between living and lifeless forms of matter."

LIFE PROCEEDS ONLY FROM LIFE

If we wish to find out the secret of life, we must not go to inorganic nature. That is what Mr. Osborn does in his book. "The Origin and Evolution of Life"; and that is what many others before him have done and are doing to-day. How can that which is dead discourse to me of life? Any information concerning life, must come from the living tissues themselves. "The passage

from the mineral world to the plant or animal world," says Drummond, "is hermetically sealed on the mineral side. This inorganic world is staked off from the living world by barriers which have never been crossed from within. No change of substance, no modification of environment, no chemistry, no electricity, nor any form of energy, nor any evolution can endow any single atom of the mineral world with the attribute of Life. Only by bending down into this dead world of some living form can these dead atoms be gifted with the properties of vitality; without this preliminary contact with Life they remain fixed in the inorganic sphere forever. Nature, to the modern eye, stands broken in two."

LIVING TISSUES

Let us take, then, a living organism, put it under the microscope, and endeavor to learn its secrets. Proceeding in that way we observe at once that the substance of every living thing consists of three parts: nutrient matter, or pabulum; germinal mat-

ter, or bioplasm; formed matter, or tissue, secretion and deposit. Let us consider these different substances one by one.

By nutrient matter we understand whatever the organism absorbs into its system as nourishment, whether it be gases from the atmosphere, mineral compounds, or food-material from already formed vegetable and animal matter.

By tissues we understand the cellular organization of an organism, and by formed material the accumulations at the outer edges of the cells, such as secretions, osseous deposits, and the like. Four-fifths of the bulk of most organisms is made up of formed matter.

Now we come to bioplasm, the most important substance of all. What is bioplasm? "Bioplasm," says the new University Distionary, "is living germinal matter or protoplasm", and the bioplast is "a minute mass of protoplasm possessing *formative powers.*"

The bioplasm is the only substance in an organism that is really alive, and bioplasm constitutes only one-fifth of the bulk of most organisms.

How did we first discover bioplasm?

In 1856 Lord S. G. Osborne prepared a certain solution of carmine in ammonia, and showed that this particular solution would stain red whatever is living in a tissue, while it did not color formed material. Professor Lionel Beale, an accepted authority on these matters, perfected the process of carmine-staining and, between the years of 1856 and 1866, discovered that the bioplast is the unit of life.

What is the nature of bioplasm?

The microscope tells us that the bioplasts are scattered so pervadingly through all organic structures that there is not a space one five-hundredth of an inch square in any living organism that is devoid of a germinal point.

The older physiologies teach that all tissues are made up of cells; and that, of course, is a fact; but the core of each cell consists of a bioplast. Formerly it was believed that the fluid in the cell, as well as the cell wall, are essential constituents of the unit of life; to-day we know that they

are nothing but formed material, and, therefore, unessential. In the center of the cell the microscope reveals to us a naked mass of bioplasm, and this bioplasm is the only substance that is really alive.

"Bioplasm may exist in masses less than one one-hundredthousandth of an inch, or as large as one two-hundredth of an inch in diameter, but, as constituting the nuclei of fully formed cells, is usually found in masses from one six-thousandth to one three-thousandth of an inch in diameter."

Bioplasm is as transparent as water, absolutely colorless, viscid, or glue-like, and under the highest microscopical powers apparently structureless. We have ultra-microscopes to-day which magnify the edge of a razor to the breadth of three fingers; but even when aided by a power of such strength the human eye can detect no mechanism or organization. All the investigator observes is a speck of transparent, colorless, throbbing matter.

This bioplasm, otherwise called germinal matter, or protoplasm, is the same in the animal and in the plant, in the sponge and

in the brain; it is the same in the lion and in the eagle, in the dog and in the elephant; it is the same in the hand and in the eye, in the heart and in the tongue; it is the same in the acorn and the lily, in the carrot and the rose. It is, to all appearance, the same in every living organism on the globe.

What is the function of bioplasm?

Bioplasm, though structureless, is capable of movement. In fact, it is very much alive. It *throbs* with life. It has the power to move in any direction it chooses. It feeds itself, and, as it feeds itself by absorbing nutrient matter, performs a work which chemistry can neither imitate nor explain.

What is this work?

Nothing less than the generation of life! Bioplasm has the power of changing the food it absorbs *instantaneously* into living matter.

This, however, is merely the beginning of the miracle. Having transformed the nutrient matter into living matter, the bioplasts next convert this living matter into cell-walls, nerves, veins, arteries, muscles, bones, and all the constituent parts of an

organism; and they not only *spin* the threads of all the mechanism of the system, but also weave and coordinate these threads into the multiplicity of designs in the plant and the animal.

And there is still another thing. The bioplast that is to spin a nerve, can by no possible outer environment be compelled to produce a muscle, and the bioplast that is spinning a muscle, can not be forced to make a nerve; and that in spite of the fact that the tiny specks which do the work, are, to all the tests known to man, identical. When they begin their work in the eagle they weave an eagle, and when they begin their work in a man they weave a man. No power on earth can compel them to produce anything else than the organism in which they are generated.

Whence came the bioplasts?

This is a very important question; nay, we may call it the question of questions, for on the answer to it depends a world-philosophy.

Before 1850, when the cellular theory

still ruled in physiology, it was believed and taught that the constituents of a cell — nucleus, covering, and cell contents — all developed spontaneously in a suitable animal fluid, exactly as a crystal shoots from the mother lye. This view was promulgated by Schwann, the father of modern histology, and scientists the world over accepted his ideas. Since the days, however, of Osborn and Lionel Beale, this conception has been shown to be erroneous. The bioplast arises from the bioplast; it does not originate spontaneously. Neither the cell wall nor the cell-fluid, neither the nucleus nor the nucleolus is necessary to the bioplast. They are not the cause of bioplasm, but rather its results.

"Nutrient material may pass through the cell-wall in animal tissues just as sap passes through the intercellular substance in vegetable tissues. When once in the bioplast, the nutrient matter is seized on by this living matter, and nuclei are developed in the bioplast, and nucleoli within the nuclei. The bioplast produces the nucleus, and not the nucleus the bioplast."

New bioplasts are formed by self-sub-

division. When a naked mass of bioplasm is examined with a microscope, it appears to boil bioplasts from its center. We see a nucleolus arise, and then a nucleus, and the nucleus, in turn, is changed into bioplasm. Thus the original bioplasmic mass grows. We continue to look, and, before our very eyes, the bioplast constricts itself, and, behold, it has made of itself two bioplasts!

In this way every bioplast known to man was formed. It arose from a preceding bioplast. Never has any student of life observed a bioplast to originate spontaneously. All life began in the bioplast, and every bioplast in living tissues arose from a preceding bioplast; but if all life began and still begins in the bioplast, and every bioplast in living tissues arose from a preceding bioplast, *whence came the first bioplast?*

Says Mr. Huxley: "For the whole living world, then, it results that the morphological unit, the primary and fundamental form of life, is merely an individual mass of protoplasm. In this no further structure is discernible."

A naked mass of bioplasm, or protoplasm,

the unit of life! How wonderful. And "protoplasm from whatever source, whether studied in a cell of the human body, in an amoeba or foraminifer, or in a vegetable organism, is essentially uniform and similar in appearance and properties. Its appearance . . . is that of a greyish, viscid, slimy, semi-transparent and semi-fluid substance. Its properties are those of living things generally, and the most salient and obvious manifestation of life is the power of automatic movement exhibited by living protoplasm." (Art. "Protoplasm", Encyc. Brit.).

LIFE OR MECHANISM — WHICH?

Once upon a time it was believed that life is the result of organization. The microscope, however, has exploded this theory. In the morphological unit, says Huxley, "no further structure is discernible." There is absolutely no molecular machinery in the bioplasmic mass. But there are movements in it, and life. "We see the movements: they must have a cause. The cause of the movements must exist before the

movements. The life is there before organization."

Can materialistic evolution account for life — for "the cause of form in organisms" (Aristotle); for "the power which directs the movements of bioplasm" (Joseph Cook)?

It can not. Evolutionists are no nearer the solution of the mystery to-day than were the Atomists and Sophists who lived thousands of years ago. Protoplasm is found only in living organism. It is not true, as so many nowadays teach, that the organisms are produced by protoplasm; rather the opposite is true: the protoplasm is generated by the organism. *The protoplasms did not come first, as the name would imply (protos =first; plasma=formed), but it came second; the organisms were first, as taught on the first page of the Bible.*

It is frankly admitted, as we have seen, that spontaneous generation has never been observed to occur. Why, then, do evolutionists still teach spontaneous evolution? This question is answered by the Encyclopedia Britannica thus: "The disproof of abiogenesis (that life originates spontane-

ously) relates only to known existing forms. . . . It may be that in the process of science it may yet be possible to construct living protoplasm from non-living material. . . . Perhaps the word archebiosis, or archegenesis (what long words they employ to impress the reader!) should be reserved for the theory that protoplasm in the *remote past* has been developed from non-living matter by a series of steps, and many of those, notably T. H. Huxley, who took a large share in the process of refuting contemporary abiogenesis, have stated their *belief in a primordial archebiosis.*"

The gist of this wordy statement is: life does not originate spontaneously now, but it may have done so a few billions of years ago!

Very well; we do not want to quarrel about this point. This is a free country, and everybody may "believe" as he pleases. What we object to is that mere "guesses" and "suppositions" are being taught the public as facts; that men like Fairfield Osborn, Conklin, and others, make bold to tell

the world, that evolution "is the most firmly established truth in the natural universe."

Let evolutionists learn to be modest; let them learn to stick to the facts; let them honestly tell the people that they know nothing for certain, but that they "believe" that such and such might have been the case, and soon all strife will cease. What theologians resent is the cocksureness which evolutionists are displaying to-day, and that in spite of the fact that their house rests on a foundation of sand.

We saw that evolution does neither account for the origin of the universe nor for the origin of life; let us now inquire whether it explains the origin of species.

CHAPTER IV

THE ORIGIN OF SPECIES

WITH reference to geological time the speculations of scientists vary enormously, some believing the oldest rocks to be older than 1,600,000,000 years, while others, reckoning time in a different way, reduce the figure to about 25,000,000 years.

"That the period of time has been vast, that it is to be counted by scores and possibly by hundreds of millions of years," says Mr. Wells, "is the utmost that can be said with certainty in the matter."

He thereupon provides a time-diagram and informs the reader, that he is at liberty either to divide the figures given therein by ten or multiply them by two; for so wonderfully elastic is the geological record that, no matter what method is employed, the result will be equally correct!

Of one thing, however, the geologist seems to be tolerably sure, namely: "What-

ever the total sum may be, most geologists are in agreement that half or more than half of the whole geological time has passed before life had developed to the Later Paleozoic level."

Now what is it that evolutionists teach in regard to the origin of species? They teach that, about a billion years ago (or 500 or 50 millions or at a still more recent date, whichever way you want it), the simplest forms of life appeared, such as algae, worms, jelly-fish, and the like.

One hundred and fifty million years later, these simple forms had risen in the scale of life and transmuted themselves into scorpions, trilobites (a kind of crab), and shell-fish.

Another hundred million years roll on (or ten millions, in case the reader prefers that figure; or two hundred millions, if his inclination is that way), and now we come upon fishes and amphibia.

Still another hundred million years, and we reach the age of the reptiles. Again another hundred, and the mammals roam the world.

At length came the "precursor of the sub-men," and, about six hundred thousand years ago, "Pithecanthropus Erectus", the sub-man, or walking ape-man, himself.

Life, accordingly, is supposed to have originated in a low form of matter, which passed into higher forms by constant succession of transmutations of species until, at last, mankind was reached.

Such is the theory. It is taught by thousands of scientists and believed in by millions of people the world over. Now what are the facts? Does an intelligent study of nature support the theory as correct, or does nature give the theory the lie? It is our honest conviction that the evidence is absolutely against evolution, and we shall now submit a few considerations upon which our conviction is based.

(1) Embryonic life is found only in living organisms.

Protoplasm or bioplasm, the unit life, has never been discovered except in living organisms. Huxley, for a time, believed he had found it in his famous "Ba-

thybius", but later investigations proved him to be wrong. Protoplasm, it is now admitted on every hand, is present only in living forms. The living forms are the matrix in which protoplasm is generated. Much as it may shatter our cherished notions, the fact remains, that it is not the protoplasm which builds up the organism, but, on the contrary, the organism which builds, or creates, the protoplasm. At any rate, that is what the eye of the observer beholds. Protoplasm has the power of self-multiplication, or self-subdivision, that is to say, of reproduction, but it can not spring into being of itself; it is dependent upon the organism. And within the organism its sphere of action is inexorably determined. As was pointed out before, no outside force can compel a bioplast to weave a nerve, if that bioplast's function is to make a vein; and no outside force can compel the protoplasm within an ape, to structure anything but an ape.

(2) Embryonic life can not propagate itself, save through the medium of the organism which produced it.

It is not necessary, as many believe, to go back 500 million years to find embryonic life, and to test its powers. Embryonic life is everywhere to-day, in our pantry, in our cellar, in our granary.

Here, for instance, is an apple. Cut it open and collect the seed; cut the seed open and collect the germ. The apple represents embryonic life; the apple seed is the apple-tree in embryo. Now have you ever seen an apple reproduce itself, except through the medium of the apple-tree? No apple produces another apple; it must first be planted, a tree must first grow up, and then your apple can multiply itself.

And so in the case of every kind of embryonic life; it can not propagate itself, except by means of the organism which first produced it. No egg ever generated another egg; it takes a hen to lay an egg. And no acorn ever produced another acorn; it takes an oak to make acorns. But in spite of the iron fact that embryonic life can not propagate itself, we are assured by science, falsely so called, that all the complex living organisms of to-day are the offspring of

embryonic life. We shall not believe it until we see an egg produce another egg!

In the connection we take occasion to shed some light on a question which is often asked in jest, but upon the answer to which greater issues depend than most people think. It is the question, "What was first, the hen or the egg?" What is our answer? Is it possible to answer this question at all?

Our reply (and it is Scriptural) is, that the hen came first. The hen alone is capable of producing the particular protoplasm that will structure other hens; and so with the swallow, the lion, and the eagle; so with the acorn, and with every organism on this globe. If the egg had been first, embryonic life ought to be able, not only to propagate itself, but also to originate spontaneously. We discover, accordingly, how true, and "scientific," is the Biblical record, which tells us that God created first the full-grown organisms and thereupon charged them: "Be fruitful and multiply." It was "grass, herbs, and trees," first; and then the seed, the embryonic life; exactly as we find it to-day.

(3) It is impossible to improve embryonic life.

If the species originated in the way evolutionists teach, it ought to be possible to develop or improve the embryos of the different organisms. If, for example, a farmer has a hen which lays but a small egg every fifth or sixth day, it ought to be possible so to improve that egg that a chicken could be hatched from it which would lay a larger and a more frequent egg. But it is universally known that the *chicken* must be improved, if the farmer desires a better egg.

It is impossible to improve embryonic life. We can not get a fine Gravenstein apple by improving the apple that was not a Gravenstein: we must improve the tree that bore the inferior fruit. If we try to improve the apple, we kill it, and if we meddle with the egg, we can not even hatch it.

And in the face of all these facts we are asked to believe that ages and ages ago embryonic life not only propagated itself, but did so in revised, improved, and amended editions! Verily, when it comes to gulli-

bility, the man who buys a gold-brick has nothing on the evolutionist!

(4) Acquired characteristics are not transmissible.

We are well aware, however, that there are many evolutionists who do not teach that the stages of progress originated in the embryo; they say the variations, or improvements, took place in the mature plants and animals.

Of course, this is merely an evasion. If the species developed as the theory declares, the original embryo *must* have been able to reproduce itself in revised editions. But we shall let that pass and consider what is urged now.

With reference to this point Professor Emile Guyénot, of the University of Geneva, remarked in 1922 in the Revue Scientifique, that the Darwinian doctrine of Natural Selection was constantly being refuted by the fact, "that the idea of selection in its true application has nothing to do with the petty individual variations which Darwin considered the very basis of evolution. We know

now that these petty variations *are not hereditary and hence can give no support to this selection.* The belief in a continuous evolution, characterizing the theory of Darwin as well as of Lamarck, has based all speculation upon mere variations incapable of comprising an advantage of consequence or a disadvantage of significance. These variations had no real influence upon the origin of species."

Thus speaks Professor Guyénot, and his words ought to carry some weight. But it is not necessary to quote authorities, for here are the facts themselves.

A German professor, some years ago, experimented patiently on mice, endeavoring to produce a race of mice devoid of tails; but although he removed the tails from one generation of mice after another, every new generation came into the light of day with the same old ugly tail.

There are countries where for thousands of years the women have pierced their ears and noses; yet when is a girl ever born with those organs already pierced?

In China, since time immemorial, it has

been the custom to bind the feet of female children, in order to check the growth of that organ. Notwithstanding this barbarous practice, every infant Chinese is born into the world with feet normal.

"Every single thing contained within the memory of man, every single word of a language, for instance, is an acquirement. But when are the contents of a parent's mind transmitted to the child?"

In India the caste systems keeps classes of people for countless generations in the same economic condition and occupation. Day after day, for months and years, a Hindu, as he plies his trade, performs the same motions; and, as a result, his body becomes bent and deformed. Nevertheless, his children come into the world as perfect as the children of other people. There is not a trace of deformity, though its parents, its grandparents, and even its greatgrandparents, may have been bent and deformed. Acquired characteristics are not transmissible.

Lamarck, it will be remembered, explained the evolution of organisms by adapt-

ability to circumstances. The giraffe, for instance, got its long neck by feeding on the foliage af trees. Constant raising of the fore-part of the body, and continuous stretching of the neck, in Lamarck's opinion, enlarged those organs to their present dimensions! But if this were true, then it would be rather hard to explain, it appears to us, why only the giraffe got a long neck by stretching. Cows likewise cull leaves from the branches of trees; they raise the fore-part of their body quite often when browsing in the woods; still their necks, we are sure, are as short to-day as at the time of the Pharaohs.

All these theories are wrecked on the inexorable fact, that acquired characteristics are not trasmissible.

(5) The so-called "beginnings" of life are still with us.

Evolutionists tell us that the algae belong among the lowest forms of life. The general name, "algae," is applied to numerous plants that grow in water, both fresh and salt, comprising seaweeds and other

species. In size they range from forms too small to be seen by the naked eye to the giant kelp found at the west coast of America, which attains a length of from 800 to 1,500 feet. They are devoid of roots, and usually adhere to the bottom or to rocks, and frequently are seen afloat on the surface.

Such are the algae, and biologists assure us, that they mark the beginnings of life. Very well; let us admit this; let us admit, for the sake of argument, that ever since there has been life on the earth, there have been the algae, or seaweeds, and that from seaweeds all the higher forms of life were evolved. Does it not then appear rather strange, if evolution be a fact, that this vegetable has remained absolutely what it was? No seaweed ever produced anything but a seaweed; but it should have done so, if Darwin and Huxley and Haeckel speak the truth. We ought to be able to point to transitional forms.

"Consider the marvel of a tropical forest," writes Joseph Cook; "above you are fifty kinds of birds; around you as many kinds of animals; a million kinds of life of

all sorts, — insects, birds, animals, trees, plants. And now we know perfectly well, that every seed in that tangle of the tropics produces its like. There is, in all the collision of tendencies in that marvel of intricate forces with power striking upon power, no jostling of a pre-determined plan off its grooves. Your palm always breeds a palm, your parrot a parrot, your ape an ape, and your invisible insect one like itself. There is no shrub so lowly, there is no animal so lordly, as to be free from the power of the law by which like breeds like.

"The co-ordination of all these forms proceeds from some adequate cause. Wherever an organic form is produced, we find that in the origin of it there are forces at work which land on the mystic bioplasmic shore with a constitution. Our fathers, off the coast of Massachusetts, assembled in the cabin of the 'Mayflower', and, before they landed, drew up a civil compact. They put foot on Plymouth rock by no means carelessly. They landed on the American coast with a plan. Just so, in this tropical forest, although there are a million coasts and a

million boats drawing near them, every boat has a plan. In the cabin of every ship that is to touch that mystic strand of the tropics, we have a council and a compact drawn up. Certain it is, that, among the million Plymouth Rocks on which the coordinating powers of the germs land, there is not one pressed by a careless foot. Everywhere the coordinating powers land on the bioplasmic shore, each with a constitution drawn up beforehand in the cabin of its Mayflower." (Heredity, p. 75.)

THE SPECIES IS FIXED

On this point Dr. Kalisch wrote in 1883, in his reply to Dubois-Reymond:

"The immutability of species can only be refuted by experimental proof of their changeableness; but when will this be possible? And as regards natural selection, has this been proved in any single instance?"

And Dr. K. Mueller wrote in 1893, with reference to the same subject:

"It was a bold thought of Darwin's to make all organisms evolve one from the

other. A glance, however, at the fossil remains of the various creation periods, dispels this beautiful idea." (Die Natur, January Number).

In further corroboration of the statement that the type is fixed, we adduce a few examples:

1. In Egyptian mummy-cases grains of wheat have been found which, when planted, produced wheat identical with ours; the only difference being that the plants were larger and more fertile than those of to-day, — a circumstance which surely does not argue in favor of evolution. Likewise, seeds of cornflowers and clover have been found in Celtic tumuli, reputed to be two thousand years old and more, and the hazelnuts and other fruits found in the lake-dwellings and at Pompeii in no respect differ from the present species.

2. The mummies of the ichneumon, the serval, the Nubian cat, and the wildcat, which the shovel of the excavator has unearthed in Egypt, are exactly like those animals to-day. And so with reference to

the primitive bear and the lion: they differ from the present species only in size.

3. Geology, likewise, controverts the evolution theory. "In the strata which, according to the Darwinians, are many hundred thousand years old, are found leaves and branches of the elm and the lime-tree, precisely similar to ours. In the amber of still older formations spiders occur, in Solenhofer slate dragon-flies, and in the strata containing coal araucarias, tree-ferns and palms like those growing in the tropics today."

As we study the thousands and thousands of fossils of past ages, we discover that many species arose simultaneously and successively; but nowhere do we find instances of gradual transition from one type into another. This being a fact, one need not be astonished at Dubois-Reymond's calm and somewhat sarcastic statement: "In holding to this theory (Natural Selection) one has the feeling of the drowning man clinging to a plank which can not do more than just hold him above water."

CROSS-BREEDING AND CROSS-FERTILIZATION

But do not the changes and improvements in both plant and animal which were obtained by cross-breeding and cross-fertilization prove that evolution is a fact?

Many honestly believe so. "Do I believe in evolution?" queries Dr. W. W. Keen. And he replies: "Most assuredly. And that for the best of reasons, namely: that I see the evidence of it all around me every day. Even in my own lifetime I have seen a wonderful evolution in vegetables, in fruit, in flowers (compare the original wild rose of my boyhood, with its ring of only five petals, with an American Beauty rose) in pigeons and chickens, in the dog, the cow, and the horse." (The Portland Oregonian, July 2, 1922).

What about this argument? Does it hold water? Is it in point at all?

We do not think so. What Mr. Keen cites as a proof of evolution, has, in reality, no bearing upon the subject at all. The examples to which he refers merely demonstrate that it is possible to ennoble the in-

dividal species; that it is possible, by care and culture and cross-breeding, to produce better and better stock from the original progenitor; that is all; but the examples mentioned do not warrant the inference, that entirely new species can be produced.

That the species possesses a certain plasticity, which renders it capable of adapting itself to outward circumstances, no theologian has ever presumed to deny; what has been denied, and with truth, is, that such plasticity or adaptability, is without limits; that the variations can go on world without end. Experience shows that variation in species is a limited quantity; that when the limit is reached, the individual perishes, and the species dies out. Experience shows us that the nearer the forms are to the original progenitor, the more vitality they possess; the farther they deviate from it, the less rapidly the variations proceed, and the more perishable the forms are.

Have men like Luther Burbank and others ever produced a new species? Not at all. They merely ennobled the species already extant; and their creations are arti-

ficial products which require everlasting nurture and care. It was not nature which evolved those nobler forms of life, but a power superior to nature, even the power of the human mind. Remove the artificial influences; leave the afore-mentioned plants and animals without care; let the external conditions become once more what they originally were, and do you know what will happen? All these plants and animals will immediately fall under the power of the law defined as

THE PRINCIPLE OF REVERSION TO TYPE.

Without care, the finest strawberries will run to waste, and without care, the "American Beauty" rose will soon degenerate into the primitive dog-rose of the hedges; and so will the four, or as some say six thousand kinds of roses, from Maréchal Niel and Gloire de Dijon to La France and Viscountess Folkstone.

From the sour orange with little pulp under a thick skin the beautiful and juicy navel oranges have been developed; but suppose all men should leave California, would

any navel oranges be found there fifty years later?

So in the case of higher forms of life. All varieties of tame pigeons, such as tumblers, pouters, and fantails, will, if they are left to themselves on a desert island, revert, in a few generations, to the original slate-colored wild gigeon, regaining even the black bands upon the wings.

When the Spaniards came to America, they brought along with them the fine Andalusian horses. What became of these horses, when they were permitted to run wild? They degenerated into the all but worthless Texas pony.

What improvement there has been in the fine Merino sheep! Once upon a time the animal was small, and the wool it produced was poor. Then man's brainy purpose took it in hand, and how remarkable a result was achieved! Yet it needs but a few score years of neglect on man's part, and the finest kinds of sheep will degenerate into the lowly primitive type.

Evolution the law of nature!? It looks as if exactly the reverse were the case. What

we must learn is carefully to distinguish between mere *improvements* of the species, and the transmutation of one species into another; between the results of nurture, domestication, and civilization, and what nature, if left wholly to itself, can do.

THE LIMITATIONS OF CROSS-BREEDING

Most people have entirely erroneous ideas on the subjects of cross-breeding and cross-fertilization; they believe that almost everything is possible in those lines. The facts, however, are quite the other way. The experimenter knows that the circle of his operations is very limited indeed.

For instance: it is possible to cross only kindred plants and animals; plum and peach may be crossed and a kindred fruit, the apricot, will result; but you can not cross the pine and the walnut-tree, to obtain a tree of fast growth like the pine and of firm fiber like the walnut.

The Prince of Schaumburg labored for many years to obtain a cross from hares and rabbits for purposes of sport, spending many thousands of dollars; but the costly experi-

ments failed entirely, although the two species, to a superficial observer, do not differ very much at all.

THE STERILITY OF HYBRIDS

One of the greatest obstacles in the way of evolution is the acknowledged sterility of hybrids.

What is a hybrid? A hybrid is a cross between two different species. As a rule, you do not get offspring at all if you cross members of two distinct species but, in case you should get offspring from the first cross, those offsprings are cursed with sterility: they are calls "hybrids"; they can not reproduce their kind.

The mule shows the limits of evolution. He is a hybrid. You get a mule by crossing a horse and a donkey. Mules are the offspring of donkey and horse; they are barren; they can not reproduce their kind. And what is true in the case of the mule, is true in regard to all hybrids. But if the sterility of hybrids be a fact (and it is a fact), how can evolution be true?

Huxley is compelled to say on this point: "If you breed from the male and female of the same race, you of course have offspring of the like kind, and if you make the offspring breed together, you obtain the same result, and if you breed from these again, you will still have the same kind of offspring; there is no check. But if you take members of two different species, however similar they may be to each other, and make them breed together, *you will find a check.* If you cross two such species with each other, then — although you may get offspring in the case of the first cross, yet, if you attempt to breed from the product of that crossing, which are what are called hybrids — that is, if you couple a male and a female hybrid — then the result is that in ninety-nine cases out of a hundred you will get no offspring at all; there will be no result whatever." (Origin of Species, p. 212).

Huxley said "in ninety-nine cases out of a hundred" there would be no result; he should have said that this law holds good in *one-hundred cases out of a hundred.*

When he made the statement quoted above, he still hoped that careful experiments might demonstrate that hybrids are not always sterile. This hope, however, has never been fulfilled. Mr. Wells, bent as he is on proving evolution to be a fact, is forced to admit in his Outline of History that all experiments along this line have proved futile. He says: "A 'species' in biological language is distinguished from a 'variety' by the fact that varieties can interbreed, while species either do not do so or produce offspring which, like mules, are sterile." ((Vol. I, p. 141).

The sterility of hybrids, accordingly, is acknowledged. But what is the application to be made of this fact? The application is this: *do not believe in evolution, until you hear that a mule begot another mule!*

ONLY VARIETIES

That by cross-breeding and cross-fertilization we have been able to obtain only varieties of the same species, is evident from the fact that, without cultivation and infinite care, all "species" thus gotten, will inevitably revert to type. No experimenter has so

far succeeded in fixing permanently the results obtained by artificial breeding. Without supervision the proud chrysanthemum returns to the purpe weed that grows on our waysides in the fall, and the best potato to the small and worthless tuber.

And that what has been obtained are only varieties is plain from another consideration. All the varieties so far produced by selective breeding are cross-fertile. There are scores and scores of kinds of pigeons; by selective breeding we got the faintails, the tumblers, the carriers, the pouters; but they are all pigeons, not another race. They are all cross-fertile. If evolution be true, it ought to be possible, by selective breeding, to produce *two varieties of pigeons so different that their intercourse would yield sterile hybrids!*

Who admits this? Professor Huxley himself. Where? In his famous "Lay Sermons and Reviews'", on page 308. In this place he quotes Professor Koelliker, an authority on embryology, who says: "If Darwin be right, it must be demonstrated that forms may be produced by selection,

which, like the sharply distinguished animal forms, are infertile when coupled with one another; and this has not been done."

"The thing we need most in the discussion, of evolution," writes Joseph Cook, "is a new definition of species. A real species will be conterminous with the outermost limits of the sphere of ascertained variability. *Grant me this definition, and I will stand with established science on the fact that we have no direct evidence that any real species, thus defined, has ever been transmuted into another species.*"

WANT OF PROGRESS IN THE BRUTE

A final obstacle in the way of evolution is the total want of progress in the brute in regard to rational thought. The beast has instinct; but it can not form conceptions or ideas. For that reason the swallow builds her nest, and the beaver his dam, exactly as they did six thousand years ago; and so in the case of the spider and the bee. As they build, so they *must* build, and they neither need to nor are able to learn their art. What they produce they produce automatically.

Not so in the case of man. He is the only creature on earth that must laboriously learn how to shape the creations of its industries; but man, likewise, is the only creature that is compensated for its toil by the capability of infinite improvement.

And why should man be the only creature capable of progress, while all other creatures have not even been able to manufacture a stone ax? There are many reasons; we shall consider them in the next chapter; in this connection we mention just one:

The proportion of brain to spinal cord in fish is as two to one; in mammals, as four to one; and in man — what? six to one? ten to one? fifteen to one? twenty to one? thirty to one?

It is neither the first figure nor the last; it is greater even than thirty to one. In man, the proportion of brain to spinal cord, is as thirty-three to one!

And yet evolutionists tell us, man was evolved from the lower creation! If that were true, would there be so many missing links? Not one link; not two links; not a dozen links; nay, full twenty-nine links must

be accounted for, if the origin of species, as taught by Darwin and Huxley and Haeckel be true.

Does evolution account for the origin of species? It does not. The species is fixed, Darwin himself being witness. He admits in "Life and Letters" (Vol. III, p. 25): "There are two or three million species on the earth, sufficient field, one might think, for observation. But it must be said to-day that in spite of all the efforts of trained observers, *not one change of a species into another is on record.*" Evolution, accordingly, accounts as little for the origin of species as it explains the origin of life, or the origin of the universe. With reference to each of the three subjects so far considered it is nothing but a huge guess. Now we shall proceed to the final and supreme question: "Does evolution account for the origin of man?" But we submit right here that, having failed so miserably in establishing the premises, it would be passing strange if evolutionists were able to prove the conclusion.

CHAPTER V

THE ORIGIN OF MAN

ACCORDING to evolutionists man was very gradually evolved; his antiquity may reach back millions of years. In fact, if the theory be correct, it must reach back to the time when first the jelly-fish was formed; or better still, to that first glimmering of life from which the jelly-fish arose. For there must be no break in the chain: the theory demands the continuity of evolution from the electron to man.

However, evolutionists do not know anything for certain. What so often they palm off on the reading public as science, are simply guesses. On this point Mr. Wells makes the following remarks:

"The origin of man is still very obscure. It is commonly asserted (mark the word 'asserted'; for nobody has ever been able to furnish any proofs) that he is 'descended' from some man-like ape such as the chim-

panzee, the orang-utan, or the gorilla, but that of course is as reasonable as saying that I am 'descended' from some Hottentot or Esquimaux as young or younger than myself. Others, alive to this objection, say that man is descended from the common ancestor of the chimpanzee, the orang-utan, and the gorilla. Some 'anthropologists' have even indulged in a speculation whether mankind may not have a double or treble origin; the negro being descended from a gorilla-like ancestor, the Chinese from a chimpanzee-like ancestor, and so on. These are very fanciful ideas, to be mentioned only to be dismissed. It was formerly assumed that the human ancestor was 'probably arboreal', but the current idea among those who are qualified to form an opinion seems to be that he was a 'ground ape', and that the existing apes have developed in the arboreal direction." (Outline, page 61).

Thus we have theory set against theory, and the exponents of each theory are firmly convinced that they alone are right, and all others wrong.

What are some of the "proofs" which

evolutionists use to establish the antiquity of man, as well as his animal ancestry? For one thing, they harp everlastingly on

THE THREE AGES

into which they have divided the history of primitive man. These ages are called respectively the Stone Age, the Bronze Age, and the Age of Iron. The Stone Age which, as they say, represents the period of man's origin and earliest movements, has again been divided into the Paleolithic or Old Stone Age, and the Neolithic or New Stone Age. During

THE OLD STONE AGE

which reaches back a million years or so, man is conceived of as a ferocious-looking savage, living in caves, eating wild fruits and uncooked food, drinking the blood and devouring the raw flesh of animals. "He had various weapons made of chipped flints, and such implements as awls, needles, daggers, fish-hooks and harpoon-heads, made from bone. He also showed artistic skill, being

able to sculpt the outlines of animals on polished surfaces of bones." — During

THE NEW STONE AGE

still very remote, as they tell us (perhaps hundreds of thousands of years before Christ), man is represented as being less rude; he has made some progress; his weapons now are of 'polished' flint. Moreover, he has learned to make fire by friction, and he lives in habitations constructed from wood and foliage. He also "has achieved the arts of weaving and pottery, and over the graves of his dead he built dolmens, cromlechs, barrons and cairns."

THE BRONZE AGE

of whose period we can not say anything with certainty either, marks another step forward in the 'ascent' of man; he now became a metal worker, advancing to a knowledge of alloys, making vessels and utensils of bronze. — At last

THE IRON AGE

was reached, and with it emerges the true

historical era: civilization begins; man has evolved from his savage state.

What is to be replied to all this? We reply that all these ages are, to a great extent, fictions of the mind. There is no proof whatever that they existed successively, marked strictly the one from the other by vast intervals of time. If evolutionists would take but five minutes to read the fourth chapter of the first book of the Bible, they would find nearly all these ages existing side by side. And that is the real fact: these ages overlapped to a large degree, just as in our time the ages of steam, gasoline and electricity overlap.

THE LATENESS OF THE STONE AGE

is shown by the fact that the Egyptians, though possessing and using all the metals, and enjoying a high civilization, systematically employed stone tools for mining and other purposes. The stone age has existed in certain parts of France to the time of Caesar, and with the Maoris of New Zealand up to the nineteenth century; while the Head Hunters of New Guinea, according to

Captain Frank Hurley, the intrepid Australian explorer and cinematographer, use knives and axes of stone to this very day. (See Current Opinion for January, 1924.)

On this subject Professor F. Bettex says: "The thousands of years during which it never occurred to paleolithic man to put a handle to a flint to make an ax of it, are the product of the imagination of certain savants. . . The historic age as regards Europe reaches back at most three thousand years, and this period of time carries us back, as can be proved, to the Bronze, if not to the Stone Age. . . Marlot reckoned eight thousand years for the Bronze and Stone Age together, while the investigations of Troyon, the great authority on the lake dwellings, do not take him farther back than 1,500 B. C., and Professor Fraas dates these settlements of Germanic tribes on the lakes at 600-800 B. C., and adds: 'Nothing compels us to place the beginnings of the lake-dwellings prior to 1,000 B. C.' This show how purely suppositious these periods are." (Science and Christianity, p. 31).

The next thing which evolutionists press into service to prove the vast antiquity of man, are the various

"FINDS",

made in diverse places of the world. The most important of these "finds" have been summarized in "Crossing the Centuries", a recent volume to which about a hundred American scholars and scientists contributed articles. We take some of our facts from that source.

Egypt

In that country, pottery was found in the alluvium, thirty feet deep below the base of the statue of King Rameses, which, in the valley of the Nile, is sunk nine feet and four inches below the surface. Geologists at first contended that this alluvium accumulated at the slow rate of three and one-half inches during each century, and that therefore the articles must have lain there since about 11,660 before Christ. And if man, at so early a date, was already so far

advanced as to make pottery, thousands of years must be supposed to have elapsed in his upward climb from "savagery", so that this "find", even if it does not prove man to be hundreds of thousands of years old, at any rate would explode the story of his origin as given my Moses.

What has become of this find? We do not hear so much of it any more, and that for a very good reason: the "specialists" didn't agree. It was asserted by not a few, that the articles in question might have sunk deeper and deeper in the soft river mud, and that no reliable proof is forthcoming that the alluvial deposits are made uniformly at the rate of three and one-half inches each century.

England

About the middle of the nineteenth century two caves were discovered in Devonshire, England, the floors of which were covered many feet deep with stalagmite or carbonate of lime, in which flint implements were found imbedded, together with the

bones of living and extinct animals, including the mammoth.

This find created a stir, for geologists at that time believed that it took about sixty thousand years for one foot of stalagmite to form. Now, since some of the articles were found at a depth of nearly four feet, it was argued that they must have been buried over two hundred thousand years. In fact, not a few scientists announced categorically that England was the cradle of the human race.

What has become of this find? It has been exploded like the one we mentioned first. The "specialists" differed again. It was proved that a foot of stalagmite may be deposited *in a century* instead of sixty thousand years, as was first assumed. In Italy, it was pointed out, the waters of the bath of San Filippo, have been known to deposit a solid mass of it, *thirty feet deep, in the short space of only twenty years!* Hence, the human relics could not be as ancient as was at first surmised; in fact, they might have lain in that cave only a few centuries.

France

Subsequently there were found, in a cave at Aurignac in France, seventeen human skeletons, and disposed about these human remains flint implements, reindeer horns rudely carved, a number of pieces of sea-shell perforated as for beads, some bones of the rhinoceros, the horse and other animals.

These relics were at first regarded as very ancient; it was believed that the skeletons belonged to prehistoric men. Later, however, the evidence was looked upon as rather doubtful. So many caves have been selected by man as a place not only of domicile, but also of burial, that no theory can be built upon such questionable testimony. The authorities could not agree as to the date to be assigned to the ossuary deposits, some declaring frankly that they might have been swept into these caves "by comparatively modern freshets." Not even the bones of the rhinoceros affected this verdict, for attention was called to the fact that the entire carcass of one was found in

Siberia as late as 1771, "covered with hair as the mammoth", which evidence confutes the theory of a vast antiquity.

The Swiss Lake Dwellers

"In the shallow parts of many Swiss lakes have been found ancient wooden piles, which are thought to have supported villages. Since implements of stone have been dredged up from the mud, into which these piles were driven, the assumption is raised that these piles, with their theoretical villages of wooden houses, belong to the stone age."

Well, suppose they do. Marlot, as we saw before, reckoned only eight thousand years for the Bronze and the Stone Age together, while Troyon, the great authority on the lake-dwellings, does not date them farther back than fifteen hundred years before Christ, and Professor Fraas is satisfied to place these settlements of Germanic tribes at from six hundred to eight hundred years before Christ, adding: "Nothing compels us to place the beginnings of the lake-dwellings prior to 1000 B. C."

Just as unsatisfactory are the "finds" made in other parts of the world, in Asia and North America, in the basin of the Mississippi river and in the valleys of the Ohio and its tributaries; in Mexico and in Spain.

The evidence deduced from river and other gravels and drifts, is absolutely unreliable, not to say worthless. It is impossible to fix their age, either from their depth or their contents. Those who use these "proofs" as yardsticks forget that the deposits of rivers vary from century to century; that earthworms and moles burrow under every hard object and cause it to sink deeper; that the globe itself, every year, quakes and trembles in ten thousand places, swallowing millions and millions of articles fashioned by man. Only think of the terrible earthquake which recently shook Japan! Is it not likely that human remains and relics were sucked into perfectly abysmal regions on that occasion! Now imagine that, after the space of ten thousand years, a geologist should dig in those places and unearth some human remains, what wonder-

ful theories could he not construct from such finds!

Anyone possessed of common sense can see how worthless such and similar evidence is. If flints and carved stones, and other tools which man makes, could lie absolutely still where they happen to fall, and if the earth's crust were quiet too, one might be able to venture a guess as to when this or that article was lost; but not under the present circumstances.

SKELETONS

We proceed to other evidence. In his reply to W. J. Bryan, Professor Fairfield Osborn adduces as his strongest proof of man's descent from a brute ancestry the discovery, in different parts of the world, of skeletons and skulls and other bones supposedly sub-human. From remains thus discovered Mr. J. H. McGregor has constructed for the American Museum of Natural History three busts, representing the "Trinil Ape Man," the "Neanderthal Man" and the "Cro-Magnon Man" respectively. In 1922 pictures of these busts were to be

seen in many newspapers and magazines, and Mr. Wells has seen fit to insert a plate showing these busts between the covers of his Outline of History. He also shows a picture of "Pithecanthropus Erectus", which, until the discovery of the "Foxhall Man" in England, was supposed to be the oldest human remains. With reference to these "reconstructions" and the assertion that they illustrate the growing intelligence of prehistoric man, Alfred W. McCann contends in his book, "God — or Gorilla," that they illustrate nothing except the imagination of J. H. McGregor, their creator.

Let us examine the "evidence" and see whether Mr. McCann's opinion is borne out by the facts.

"Pithecanthropus Erectus"

In his time-chart of the glacial ages, on page 62 of his Outline (Four Volume Edition), Mr. Wells places "Pithecanthropus Erectus" as far back as five hundred fifty thousand years! The picture of this "walking ape-man" he gives on page sixty-eight, while beneath the cut we find these signifi-

cant words: "The face, jaws, and teeth are mere guess-work. The creature may have been much less human-looking than this."

Let us proceed slowly now. Mr. Wells tells us that "the face, the jaws, and the teeth" of Pithecanthropus Erectus, which Haeckel time and again hailed as "the missing link" between man and the ape, "are mere guess-work". Let us get that straight in our minds. Scarcely more than a head is shown in the picture, and we are solemnly informed that from what we see we must yet deduct the face, the jaws, and the teeth! Only that which is left after such deductions have been made constitutes the original find. We request the reader to make these deductions and see how much remains.

Most people who read Haeckel's enthusiastic essays on Pithecanthropus Erectus received the impression that a whole skeleton of the so-called sub-man had been found. Now, however, we know differently. Just what was it that was found, and when and where? Here is the story.

In September, 1891, a Dutch physician discovered on the island Java, in the alluvial

deposits of the river Bengawan, at a depth of some forty feet, a molar tooth. A month later he found the upper **part of a skull,** not in exactly the same place, but close by. Somewhat later another tooth was unearthed, and, in October 1892, about forty-five feet farther up-stream, a thigh-bone "bearing evidence of prolonged disease." (Professor Dennert, "Die Wahrheit ueber Ernst Haeckel," page 132).

This is all that was discovered: the upper part of a skull, two teeth and a diseased thigh-bone; and these remains were turned up by the spade both at different times and in different places. Furthermore it must be mentioned that according to not a few authorities the skull is too small for the thigh-bone.

Now listen and stand amazed at what evolutionists have done! They have taken these four bones — bones found many feet deep in the earth; found at different places and at different times; bones concerning which many anatomists have declared, not only that they could never have belonged together, but that, in fact, the skull must

have belonged to a true ape; they have taken, I say, these four bones and from these fragments reconstructed what Haeckel elaborately applauded as "the missing link" between man and the brute; and by means of this reconstructed "Pithecanthropus Erectus" (the walking ape-man), they undertake to prove that man's antiquity reaches back some five hundred thousand years or more!

Can you beat this! Has greater faith ever been found in Israel! Do such methods deserve to be honored by the name of science! Evolutionists are wont to smile at us for believing that Jonah was swallowed by a whale; but do you know what evolutionists do? They make Jonah swallow the whale! A man who still can think straight has but a smile for such puerilities.

After Pithecanthropus there ensues, say evolutionists, an interval of from between two hundred thousand to two hundred and fifty thousand years, without any trace of man's percursors; then another little scrap of bone comes to hand — a jaw-bone. This

jaw-bone was found near Heidelberg, and the owner of that jaw-bone has been named

Homo Heidelbergensis

"It is not the jaw-bone of a man as we understand man, but it is man-like in every respect, except that it has absolutely no trace of a chin; it is more massive than a man's, and its narrowness behind could not, it is thought, have given the tongue sufficient play for articulate speech. It is not an ape's jaw-bone; the teeth are human." (Wells "Outline of History," p. 9).

Well, what of it? If it is not an "ape's" jaw-bone, and it is "man-like in every respect, except that it has absolutely no trace of a chin", why not look upon it as a malformation? I have myself, not so long ago, seen a man almost devoid of a chin. To us it appears absurd in the extreme to build a world-philosophy on a chinless jaw-bone. We want stronger evidence.

Nearer to us than the "Homo Heidelbergensis" is the

"Piltdown Man,"

whose skull was found in 1912 on Piltdown Common, in Sussex, England. The skull was not found complete but in fragments. The first scraps of it "were found in an excavation for road gravel in Sussex. Bit by bit other fragments of this skull were hunted out from the quarry heaps until most of it could be pieced together." (Wells "Outline", page 70).

The work of "piecing" these fragments together was done by Drs. Dawson and Woodward, and they took care to construct "something essentially monkey-like, with receding forehead, projecting brows, and a gorilla-like lower jaw." Dr. Keith, a very high authority in anthropology, says, that the work was done "in open defiance of all that scientists know about skulls, whether ancient or modern." He took the trouble himself of "articulating the bones in a manner accepted by all anatomists in all times,"

and found, "that the brain-chamber, instead of measuring 1,070 cubic cm., as in Dr. Smith Woodward's reconstruction, measured 1,500 cubic cm., — a large brain chamber for even modern man."

The "Neanderthal Man",

a skull of whom was discovered in 1856 near Duesseldorf, are supposed to have lived about fifty thousand years ago. They "partly ate their kill where it fell; but they brought back the big marrow bones to the cave to crack and eat at leisure. . . They used skins to wrap about them, and the women probably dressed the skins." Their brain, it is said, was as big as ours, but different. It is not believed, however, that they had what "we should call a language."

All these things, and many more, evolutionists deduce from the skull found by Dr. Fuhlrott, of Elberfeld, in the neighborhood of Duesseldorf; they deduce these things in spite of the fact that there is a wide divergence of opinion among scientists in regard to the origin of that skull. The

celebrated Virchow wrote of it: "Even if we take it as typical of a race, which I consider inadmissible, we can not find in it any approach to the skull of an ape." Dr. Meyer, of Bonn, believed it to be the remains of a Cossack killed in 1814. Dr. Pruner Bey, after measuring its capacity and finding it greater than the present average, pronounced it to be that of a Celt of historic times; while Professor Davis affirmed it was the *skull of an idiot who probably lost his life by falling down into the chasm in modern times!*

Such conflicting reports can not but perplex the layman; he begins to wonder whether the "specialists" themseves know at all what they are talking about. Professor Fraas, himself an authority, ridicules these "sure results of science", and remarks: "These diverse views of men of science afford the best proof that we know next to nothing about these primitive men." (Vor der Suendflut, page 478).

Another interesting remains is the skull found in 1831 near Liege, in Belgium, about

seventy miles from the Neanderthal. This skull is called the

"Engis Skull"

But with reference to this skull we notice the same difference of opinion. Professor Vogt pronounced it similar to that of an ape; Lyell believed it to be that of a Caucasian; Huxley considered it so beautiful that it "might have belonged to a philosopher"; while the Petersburgh anatomist, Theodore Landzert, compared it to the classic skulls of the handsome Greeks! Professor Huxley, moreover, declared, that, after going through a large collection of Australian skulls, he "found it possible to select from these crania two (connected by all sorts of intermediate gradations), the one which should very nearly resemble the Engis skull, while the other would somewhat less closely approximate to the Neanderthal skull in size, form, and proportions."

Exactly! For once we find ourselves in agreement with Huxley, and his words remind us of what Professor Bettex says in "Science and Christianity" (page 33):

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"Skulls no more bear a date than other bones or stone axes, and in all ages there have been round and long-shaped skulls, clever and stupid heads, and deformities and idiots, too!" And thereupon he quotes Professor Pruner Bey as saying: "We can positively maintain, that there is no type of skull which is not found in the cave of Solutré."

The "Cro-Magnon Man",

which is supposed to be the immediate ancestor of men like ourselves, is supposed to have lived about twenty-five thousand years ago. His skeleton was discovered in the grotto of Cro-Magnon. As a matter of fact, a number of skeletons were found: that of a woman, that of a man, that of a child, and the skeletons of two youths. The skeleton of the older man measured nearly six feet, and his brain capacity as also that of the woman, was astonishingly big. It is even said that the brain capacity of the woman exceeded that of the average male of to-day. In addition there were discovered, at the Grimaldi cave, near Mentone, two

skeletons of men who either lived simultaneously with the Cro-Magnards, or immediately preceded them.

What is to be said here? We find that "the lengths of the bones of the arm and thigh of the man of Mentone, have the proportions ordinarily found in man, and the skull is of excellent Caucasian type." And the same thing can be said with reference to the Cro-Magnards. Dr. Dawson says of all these human remains: "While some, on such evidence, would stretch the antiquity of man to even half a million years, the oldest of these remains may, after all, not exceed our traditional six thousand. These skeletons tells us that primitive man had the same high cerebral organiation which he possesses now, and we may infer the same high intellectual and moral nature, fitting him for communion with God and headship over the lower world."

THE SUPPOSED SIMILARITY BETWEEN MAN AND THE APE

When one places side by side the skeletons of a man, a gorilla, and a chimpanzee,

an undeniable resemblance is at once apparent. The similarity, at first glance, is haunting; it grips the onlooker with elemental force. Many men, unable to rid themselves of the first impression, have jumped to the wildest conclusions. Had they looked deeper, however, they would have discovered that the similarity is only superficial; that, in fact, the differences far outnumber the points of resemblance. What are some of the differences?

"Particular stress," says Mr. Wells, "has recently been laid upon the tread of the foot. Man walks on his toe and his heel; his great toe is his chief lever in walking, as the reader may see for himself if he examines his own footprints on the bathroom floor and notes where the pressure falls as the footprints become fainter. His great toe is the king of his toes." But "among all the apes and monkeys, the only group that have their great toes developed on anything like the same fashion as man are some of the lemurs. The baboon walks on a flat foot and all his toes, using the middle toe as his chief throw off, much as the bear does. And the three

great apes all walk on the outer side of the foot in a very different manner from the walking of man."

Mr. Wells calls attention to the fact that the great apes are forest dwellers; that their walking is merely incidental; that they have peculiar methods of climbing; swinging, as they do, by the arms, from limb to limb. Man, on the other hand, feels most secure and at home on the ground; if he climbs at all, he does it awkwardly and with considerable caution. Moreover, he does not swim naturally, as the ape does; he must learn it as he learns his art or trade.

And there are many other important differences. Man has only two hands, wherefore he is classed as a Bimana, while the ape, though we sometimes speak of him as walking, has in reality no feet at all, but rather four hands, on which account he is classed as a quadrumana. This essentitl difference, Mr. Dana, in his "Geology", declares sufficient enough to render man's descent from the ape absurd. He also calls attention to the network of muscles in the neck of an ape, and invites all persons who be-

lieve they had an ape for their ancestor, to try to walk on fours, keeping their heads in a horizontal position for any length of time, and adds: "In the highest man-ape, the nearest allied of living species has a capacity of the cranium of but *thirty-four cubic inches;* while the skeleton throughout is not fitted for an erect position, and the fore-limbs are essential to locomotion: but, in the lowest of existing men, the capacity of the cranium is *sixty-eight cubic inches;* every bone is made and adjusted for the erect position; and the fore-limbs, instead of being required in locomotion, are wholly taken from the ground, and have other and higher uses."

THE GREATEST DIFFERENCE

Here we have come upon the most essential difference. Dana informs us that in the highest man-apes the cranial capacity is merely thirty-four inches, while in the lowest of existing men it is fully double as much. After we have been reminded of this point of resemblance and that, between the skeletons of man and the ape, why not bring the

contention to the real test? What of the brain? The brain is the central portion of the system: "increased cephalization is the law of the progress in animal forms." What do we find if we compare man and the ape in that essential respect? We find that the difference is just half!

Not a few people, who heard or read of the so-called "missing link", are of the belief that just one link is missing to bridge the gap between man and the ape. Indeed, that is the impression which was left by the American Association for the Advancement of Science, which met in Cincinnati, in December 1923. According to the Portland Oregonian Dr. H. L. Fairchild said at that meeting: "The very narrow gap between the higher living primates and the genus homo may be closed almost any day by new discoveries. Already we have a number of suggestive semi-human fragments."

"The very narrow gap," said Dr. Fairchild. "Just one missing link," say others. But what is the actual fact? When we compare the cranial capacity of man and the

ape the difference is *just half!* Still we thank Dr. Fairchild for his statement; he has at any rate admitted that a "gap" still exists; that the gulf has not yet been bridged. Will it ever be bridged? We invite the reader to peruse another statement of Dana's and decide for himself whether the possibility is great or small:

"No remains of fossil man bear evidence to less perfect erectness of structure than in civilized man, or to any nearer approach to the man-ape in essential characteristics. The existing man-apes belong to lines that reached up to them as their ultimatum; but, of that line which is supposed to have reached upward to man, not the first link below the lowest level of existing man has yet been found. This is the more extraordinary, in view of the fact, that, from the lowest limits in existing man, there are all possible gradations up to the highest; while below that limit there is an abrupt fall to the ape-level, in which the cubic capacity of the brain is one-half less. *If the links ever existed, their annihilation without trace is so extremely improbable, that it may be pro-*

nounced impossible. Until some are found, science can not assert that they ever existed."

Huxley and Haeckel were well aware of these facts, and yet they have more than once affirmed, that man differs less from the apes than the upper apes do from the lower apes, or than the uppermost men differ from the lowermost men.

A TEST

If it be true, as some people believe, that the Simian ape resembles man more than does the Australian negro, why is it that the offspring of the afore-mentioned ape, even if he be given every opportunity to educate himself, develops into nothing but an ape, while the offspring of the Australian negro, if he be placed in a nursery with civilized children, may grow up into a genius? Honestly, if the Simian ape looks more like a man than some of the lower men themselves, it ought to be possible to turn him into a true *homo sapiens*. But why is it that all attempts along those lines have proved abortive? Can it be because of the

inexorable fact, that you can not evolve what has not first been involved?

THE PRESENT STATE OF AFFAIRS

The difficulty mentioned by Professor Dana is practically insurmountable, and the defenders of the evolution hypothesis know it. It is because of the fact that the evidence is so unreliable, that it becomes necessary again and again to patch up the theory or change it altogether. We find that at this writing three views are being promulgated: (1) that man descended from the ape; (2) that man and the ape are cousins, having a common brute ancestor; (3) that the ape degenerated from man. Let us consider them briefly one by one.

MAN AS DESCENDED FROM THE APE

That view was defended by Haeckel. (Vide "Die Weltraetsel, page 51, Taschenausgabe). And there are evolutionists aplenty who still believe so to-day. But we saw how large a gulf separates man from the ape: not one link merely, but thirty-

four links. We saw that the cranial capacity of the highest ape is only thirty-four cubic inches, while that of the lowest man is sixty-eight; and we saw furthermore that while there are all possible gradations from sixty-eight inches upwards in the scale to almost one-hundred cubic inches, and also from thirty-four inches downwards, not a single link exists to span the gap that yawns between thirty-four inches and sixty-eight. Professor Dana's opinion is that the links never existed; and his opinion will stand until at least some of the links are found.

MAN AND THE APE AS COUSINS

So formidable are the obstacles in the way of man's direct descent from the ape, that a new theory has of late been devised according to which man and the ape must be traced back to a common brute ancestor. At the meeting of American scientists in Cincinnati, to which reference was had a while ago, Dr. Ales Hrdlicka of the National museum, at Washington, D. C., declared: "The relationship of the existent ape to man probably is that of a cousin, the two

having sprung from branches of the same family hundreds of thousands of years ago. If we went far enough back, however, both probably would be found to have had their origin in the state of a simple, double molecule." (Portland Oregonian, December 29, 1923).

We shall not discuss the "simple, double molecule" in this place; the professor no doubt understood perfectly well what he meant. What we are concerned about now is that man and the ape are declared to be "cousins".

What compelled evolutionists to concoct this new theory? For that it is a concocted theory, and not one based upon facts, is evident from the very phrasing employed by Mr. Hrdlicka. In the two short sentences he uses "probably" twice; a method which reminds one rather vividly of the style in Darwin's "Origin of Species".

The reason for the new theory is not far to seek: evolutionists found it impossible to bridge the gap which separates man from the ape; the thirty-four links were too much for them. So they tried to find a way out of

the difficulty and announced, "Man and the ape are cousins; they descended from a common brute ancestor. Eureka!"

But there is an old saying to the effect, that one ought to look before he leaps. This adage the evolutionists would have done well to remember; for in order to save their precious theory, they have jumped literally from the frying pan into the fire.

Let the reader figure it out for himself. By accepting the first theory it was necessary to account for only thirty-four links, that is to say, from the lowermost man to the uppermost ape; but by accepting the second theory, it becomes necessary to account for *all the links from man downward to that suppositious brute ancestor* — nay, to the "simple, double molecule" itself!

Now can man be so traced back? The so-called man-ape can indeed be traced farther and farther down the scale; "but of that line which is supposed to have reached upward to man, not the first link below the lowest level of existing man has yet been found." The difficulty, accordingly,

has not be removed or lessened, but, on the contrary, immensely increased!

THE APE AS A DEGENERATED MAN

These things being so, is it any wonder that ever new theories are being put forth? With reference to man's "evolution" or "devolution" (whichever way one cares to put it), I read the following statement in "Crossing the Centuries" (page 46): "And the missing link? Why, that is like the case of the apple-core, which one hungry urchin asked of his more fortunate companion who was munching an apple, only to receive the cold reply, 'There ain't going to be no core!' The newer school of scientists have so decided, — there is no use in further search for any missing link, for the simple reason that there is none!

"One theory now advanced is that the ape is a *degenerated type of primitive man,* which seems more scientific, as there are now plenty of human beings tending toward the ape, which come under our observation, and are only retarded in their degeneration by the restraints of civiliation."

There now: take your choice! But henceforth let no evolutionist speak again about the "assured results of science"!

We reject the third theory, even as we reject the first and the second; for if the ape is a degenerated man, it ought to be possible, by culture and education, to change him back into a man, — a thing which can not be done. But suppose the third view were, after all, the correct one, would man's origin in any way have been accounted for? By no means. We should then know only whence came the ape; as regards the origin of man, evolutionists would as much be in the dark as they were when first they began their investigations.

WHAT HENRY DRUMMOND SAYS

At this point I can not resist the temptation of quoting a remark by Henry Drummond, which he makes on page 333 of his book "The Ascent of Man". After exerting his ingenuity to prove that man came up from the lower creation, and fighting many a pitched battle in favor of evolution, he

ultimately hands the patient reader this: "It is not said that the view here given of the process of Evolution has been the actual process. The illustrations have been developed rather to clear up difficulties than to state a theory. THE TIME IS NOT RIPE FOR DARING TO PRESENT TO OUR IMAGINATION EVEN A PARTIAL VIEW OF WHAT THAT TRANSCENDENTAL PROCESS MAY HAVE BEEN." (Underscored by us).

THE LAST PROP

We must mention just one more argument (alluded to already before), and then we shall close this chapter. At that Cincinnati meeting, to which reference was had twice above, it was pointed out time and again that one of the most convincing evidences in favor of evolution is the close similarity between the skeleton of man and those of the animals below him. Dr. Keen, in the Portland Oregonian of July 2, 1922, uses that same argument, and says: "Go with me into the museum of the Academy of Natural Sciences in Philadelphia and com-

pare the skeleton of man with those of the lower animals. Practically, these animal skeletons will closely resemble the human skeleton, though when closed with flesh and skin they look very unlike."

This is the stock-in-the-trade argument of evolutionists, — the last prop. They place in a row the skeletons of fishes, reptiles, birds, mammals, and men, and say: "Don't you see the ladder of progress? Fish, lizard, bird, mammal, man: these were the steps in evolution. We see the gradations with our very eyes. What need is there of further evidence?"

We think we can go the evolutionist one better. We can take a flivver, a Buick, a Studebaker and a Packard and put them all in a row. There is progress there too. Yet the man who would say that the Packard tourist car has evolved from the flivver through the Buick and the Studebaker would make himself ridiculous. There is progress there, of course, and evolution, if you care to call it thus; but the evolution was not in the automobile. It was in the mind of the

automobile maker. So with reference to the skeletons under consideration. If they resemble one another, if there is a certain progress there, from the simple to the more complex, from the less perfect to such as are perfect, what of it? Can it prove anything else but that the Creator fashioned his creatures according to a plan? A little more common sense would stand the evolutionists in good stead.

THE RESULT OF OUR INVESTIGATION

Does evolution account for the origin of man? If a microbe can swallow the universe, yes. We have seen that evolution accounts as little for the origin of man, as it does for the origin of species, the origin of life, or the origin of the universe. But if evolution accounts neither for the origin of the universe, nor for the origin of life, nor for the origin of species, nor for the origin of man, what, in the name of reason, does it account for!

We might conclude our book at this point, but we shall not. Having proved to the reader that evolution is *not* the law of na-

ture, we shall, in a few final pages, show him that it is exactly the reverse: we shall show him that the law of nature is Degeneration.

CHAPTER VI

DEGENERATION

THE assertion that the law of nature is degeneration, may have been a surprise to many. But we have stated only a fact. Any man is able to verify the statement for himself, for the evidence is at hand in abundance. North and south and east and west, the law of nature is degeneration. We shall prove this both in the case of man and of animal, in the case of the plant and the mineral.

MAN

All men who know themselves are conscious of a deep-rooted and active principle existing within themselves, impelling them downward as with irresistible force. Theologically this principle is described as gravitation, a bias toward evil. The Bible view is that man is conceived in sin and shapen in iniquity; and experience tells him that

he will shape himself into further sin and ever deepening iniquity without the smallest effort, without in the least intending it, and in the most natural way if he simply let his life run. It is on this principle that the wicked are said in the Bible to be lost. They are not really lost as yet, but they are on the sure way to it. The bias of their lives is in full action. There is no drag on anywhere. The natural tendencies are having it all their own way; and although the victims may be quite unconscious that all this is going on, it is patent to every one who considers even the natural bearings of the case that "the end of these things is death." Now why is it that it is so easy to let your life run? And why is it so difficult to rise to a higher type of life? It is because the law of nature is *Degeneration;* it is because the principle of degeneration in each man's nature is supreme. If a man neglect himself for only a few years he will change into a worse man and a lower man. If it is his body that he neglects, he will deteriorate into a wild and bestial savage — like the de-humanized men who are discovered

sometimes upon desert islands. If it is his mind, it will degenerate into imbecility and madness; solitary confinement has the power to unmake men's minds and leave them idiots. If he neglects his conscience, it will run off into lawlessness and vice. And if he neglects his soul, it must inevitably atrophy, drop off in ruin and decay. (Adapted and condensed from Henry Drummond's "Natural Law in the Scriptural World", pages 101 and 102).

Function may and does account for the modification of an organ, but it can never account for its formation, since it can not be used before it is formed. The rudimentary organs in man and beast, both physical and spiritual, are the result of neglect.

THE ANIMAL KINGDOM

What is true of man is true of the animal likewise. Neglect your blooded stock, and what will happen? Degeneration will set in at once: your Andalusian horses will degenerate into worthless Texas ponies; your fantails, carriers, and pouters into the slate-

colored wild pigeon, and your finest merino sheep into the scrub sheep of the Middle Ages. Degeneration is the law of nature.

THE PLANT KINGDOM

And what holds good in the case of man and the animal, holds good also in the plant world. Without care and supervision the rose, the strawberry and the orange, and every other noble fruit, deteriorates inexorably to something that is inferior: the finest Gloire de Dijon to the dog-rose of the hedges; the choicest strawberry into the wood-strawberry; and the sweetest naval orange into one with a thick skin and sour pulp.

THE MINERAL KINGDOM

But what about the mineral kingdom — here there must surely be an exception? Is it not a fact that, in the course of time, the baser metals change into gold?

That is what the alchemists believed of old, but it is not true. The latest science tells us that also in the mineral kingdom the law of nature is degeneration. For proof

read the following statement by Dr. E. N. da Andrada, a physicist of world renown: "The alchemist's dream is reversed; instead of lead changing into gold, we find radium, so much more precious than gold, changing in the course of centuries into lead, the lead atom resulting being some ten per cent. lighter than the radium atom. And there are other similar chains of transformations." (Current Opinion, July, 1922).

Dr. Andrada furthermore points out that not only are atoms not indestructible, but some of them destroy themselves. "We look on," he says, "and note the transformations; we can not stop them, nor can we hasten them. The reverse process has never been detected. No atom has been caught absorbing energy and building itself up to something higher and heavier. We have decay, but we have not witnessed any resurrection."

CONCLUSION

Our investigation is at an end. What have we found? At the beginning we quoted Professor Osborn as saying, that the

facts in favor of evolution "make up such an army of evidence," as to lift the question "out of the domain of hypothesis and theory into the domain of natural law." We quoted him further as asserting, that evolution "is the most firmly established truth in the natural universe." Now we ask the reader to judge for himself. As for us, we turn with infinite relief to the Bible, to read upon its first page the simple but majestic words: "In the beginning God created the heavens and the earth." That answer to us is all-sufficient: we find more wisdom in that verse than in all the books ever written by materialistic philosophers. Atheism burrows in the dark; it never simplifies anything; it merely increases the difficulties.

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